

## REMARKS

Reconsideration and allowance of this application, as amended, are respectfully requested.

Claims 1 and 5 were rejected under 35 USC 102(b) as being anticipated by Siegrist et al (US Patent No. 5,792,483). This ground of rejection is respectfully traversed. Claims 2-4 were rejected under 35 USC 103(a) as being unpatentable over Siegrist et al in view of Rosato's Injection Molding Handbook. This ground of rejection is also respectfully traversed. It is believed that the claims, as amended, patentably define over each of the references of record, alone or in combination.

A feature of the claimed inventions (including independent claim 1) is 'correcting' command from one injection operation to the next. Data relating to a previous injection operation is examined and used to generate command data for the next injection operation (see page 10, line 10 to page 11, line 36).

The phrase "injection operation" refers to a whole operation for injecting a single product, as implied by the 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs of claim 1.

Accordingly, a difference between target value and actual value at a point of time (A) in the previous injection is corrected for the corresponding point of time (A') in the next injection operation, so that the difference is expected to be close to zero according to the continuing injection operations.

This process is different from what is taught by the references. The correcting method taught by Siegrist et al relates only to a single injection operation. Specifically, Siegrist discloses a target (desired) value for injection velocity/pressure (see reference col. 8, line 5). However, Siegrist et al only calculate deviation between desired and actual pressure or deviation between desired and actual movement at a point of time (A) to obtain velocity command for the next point of time (B) (see col. 9, lines 10-29). In other words, Siegrist et al use the following equations:

$$\sqrt{(P_{set} - P_{actual})} \times kp = \pm S_{tg}$$

$$\sqrt{(S_{set} - S_{actual})} \times ks = \pm S_{tg}$$

where  $P_{set}$  is the desired injection pressure,  $P_{actual}$  is the actual injection pressure,  $kp$  is a

pressure amplification factor,  $S_{set}$  is the desired screw position,  $S_{actual}$  is the actual screw position,  $k_s$  is a position amplification factor, and  $S_{tg}$  is the transmitted velocity command signal.

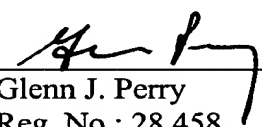
According to the Siegrist et al method, the correction data (calculated deviation) is not used for the next injection operation. The deviation at the corresponding point of time (A') is not corrected, so that the same deviation will occur when the injection operations are repeated.

All outstanding matters having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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